

A RECLASSIFICATION OF THE DESCRIBED MEXICAN
AND CENTRAL AMERICAN SPHAERIONINE
CERAMBYCIDAE

(Coleoptera)

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The wide discrepancies in the application of the older generic names for sphaerionine Cerambycidae by Thomson (1860, 1864), Lacordaire (1869), Bates (1880, 1885), and Aurivillius (1912) has made the identification of Mexican and Central American species difficult, although Gounelle (1907) has done much to clarify the application of these names to the South American fauna. The following notes are intended merely to provide a workable classification for the previously described species, principally those treated by Bates in the *Biologia Centrali-Americana* (1880, 1885) and his supplement thereto (1892). No attempt has been made to integrate the various undescribed species which exist in collections, although these have been taken into account, where feasible, in testing the validity of generic concepts.

The tribe Sphaerionini is not clearly separated from the Elaphidionini. Its use here is one of convenience. The genera included, with the exception of *Axestinus*, all have the antennae or posterior tibiae carinate, usually both, and spines at the apex of one or more antennal segments beginning with the third.

KEY TO THE GENERA OF DESCRIBED MEXICAN AND
CENTRAL AMERICAN SPHAERIONINI

- 1. Intermediate and posterior femora pedunculate and clavate at or beyond the middle2
- Intermediate and posterior femora gradually enlarged or linear13
- 2(1). Elytra subglabrous or thinly clothed with suberect hairs, or with patches of condensed appressed pubescence3
- Elytra uniformly densely clothed with very fine, silky pubescence, antennal spines of female short, of male very feeble; femora without apical spines; intermediate coxal cavities

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- open to epimera (type: *Sphaerion cyanipenne* Serville)
 *Sphaerion*
- 3(2). Pronotum and elytra polished, shining, subglabrous or thinly
 clothed with erect or suberect hairs4
- Pronotum with condensed patches of pubescence or tomentose
 areas or the surface densely alveolate-punctate9
- 4(3) Pronotum without a lateral tubercle5
- Pronotum with an obtuse lateral tubercle; intermediate coxal
 cavities open to epimera; posterior femora bispinose or
 bidentate at apex (type: *Stizocera floridana* Linsley).....
 *Nesostizocera*
- 5(4). Antennae with apical spines on segments three to five or more;
 elytral apices with an external spine6
- Antennae with a long spine on third segment, remaining seg-
 ments unarmed; elytral apices not, or scarcely emarginate,
 without an external spine (type: *Psyrassa pilosella* Bates)
 *Micropsyrassa*
- 6(5). Posterior femora unarmed or at most bidentate at apex7
- Posterior femora spinose at apex; intermediate coxal cavities
 closed to epimera (type: *Stizocera armata* Serville)*Stizocera*
- 7(6). Intermediate coxal cavities open to epimera; spine of third
 antennal segment not more than twice as long as that of
 fourth segment8
- Intermediate coxal cavities closed to epimera; spine of third an-
 tennal segment more than twice as long as that of fourth
 segment (type: *Periboeum villosulum* Bates)*Neoperiboeum*
- 8(7). Antennal segments three to five spinose at apex, spines of third
 and fourth segments disproportionately long; pronotum dis-
 tinctly punctate (type: *Periboeum cribricolle* Bates)
 *Hemistizocera*
- Antennal segments three to seven spinose in the male, three to
 eight in the female, the spines gradually decreasing in size;
 pronotum smooth and almost impunctate (type: *Nephalius*
rutilus Bates)*Nephaliodes*
- 9(3). Pronotum densely alveolate-punctate10
- Pronotum not alveolate-punctate11
- 10(9). Antennae with segments three to seven spinose at apex; elytra
 immaculate (type: *Conosphaerion concolor* Linsley).....
 *Conosphaerion*
- Antennae at most with segments three to five spinose at apex,
 spines of fourth and fifth segments minute or lacking in
 the male; elytra each with an oval integumental spot (type:
Periboeum bimaculatum Bates)*Haplosphaerion*
- 11(9). Pronotum irregularly sculptured with dorsal callouses; elytra
 with irregular patches of dense white pubescence, without
 pale integumental spots12
- Pronotum minutely punctate and tomentose at least marginally,
 without irregular dorsal callouses; elytra with pale integu-

- mental spots; third to eighth antennal segments spinose at apex, gradually decreasing in length (type: *Sphaerionillum quadrisignatum* Bates).....*Sphaerionillum*
- 12(11). Antennae with spines at apex of segments three to five, at least; elytral apices emarginate, outer angle dentiform or spiniform (type: *Trichophorus albisparsus* Bates)
 *Eutrichophoroides*
- Antennae with a short spine at apex of third segment, fourth segment unarmed or minutely dentate or spiculate; elytral apices sinuate-truncate (type: *Trichophoroides niveus* Linsley)*Trichophoroides*
- 13(1). Pronotum unarmed or with an acute lateral tubercle or process.....14
- Pronotum broadly angulate with an obtuse lateral tubercle; elytra minutely pubescent (type: *Nephalius amictus* Newman)*Nephalius*
- 14(13). Pronotum polished, glabrous, sparsely punctate15
- Pronotum densely punctate or pubescent, or punctate with smooth spaces or polished dorsal callosities21
- 15(14). Pronotum without prominent elevated callosities; femora bidentate or unarmed at apex.....16
- Pronotum with prominent elevated dorsal callosities; intermediate and posterior femora linear, armed with a prominent apical spine (type: *Sphaerion erichsonii* White).....
 *Pantonyssus*
- 16(15). Pronotum without a lateral tubercle17
- Pronotum armed with a lateral tubercle; antennal segments three to seven spinose at apex in the male, three to ten in the female; elytral apices emarginate, with an external spine (type: *Nephalius suturalis* Pascoe).....*Parastizocera*
- 17(16). Pronotum subcylindrical: eyes coarsely or moderately coarsely faceted; prosternum with intercoxal process arcuate posteriorly18
- Pronotum depressed, wedge-shaped or broadly rounded at the sides; eyes finely faceted; prosternum with intercoxal process abruptly declivous posteriorly (type: *Callidium notatum* Olivier)*Stenosphenus*
- 18(17). Episterna of metasternum not covered by elytra19
- Episterna of metasternum very narrow, covered by elytra, except toward base; spines of third and fourth antennal segments stout and recurved, that of third segment not disproportionately larger than that of fourth segment (type: *Nephalius xestioides* Bates)*Megapsyrassa*
- 19(18). Antennal spines gradually decreasing in length, that of third segment but little longer than that of fourth segment; eyes finely to moderately coarsely faceted; elytra sometimes densely pubescent20
- Antennal spine of third segment disproportionately long, usually

- at least twice as long as that of fourth segment; eyes coarsely faceted; elytra never densely pubescent (type: *Psyrassa basicornis* Pascoe)*Psyrassa*
- 20(19). Eyes very finely faceted; intermediate coxal cavities closed to epimeron (type: *Stenosphenopsis nitidicollis* Linsley).....
.....*Stenosphenopsis*
- Eyes moderately coarsely faceted; intermediate coxal cavities open to epimeron (type: *Ironeus duplex* Bates).....*Ironeus*
- 21(14). Pronotum with a lateral tubercle22
- Pronotum without a lateral tubercle.....24
- 22(21). Elytra sparsely clothed with erect and suberect hairs; prostrate hairs, if present, not obscuring surface23
- Elytra densely clothed with golden and brown tomentum which completely obscures the surfaces (type: *Mallocera glauca* Serville)*Mallocera*
- 23(22). Pronotum with a prominent lateral tubercle which is usually acute or subacute; elytra with pale integumental maculations, usually subcostate, apices bispinose (type: *Mallocera lacordairei* Lacordaire)*Paramallocera*
- Pronotum with a feeble lateral tubercle; elytra concolorous, without integumental maculations, smooth, apices emarginate but not spinose (type: *Pseudoperiboeum subarmatum* Linsley)*Pseudoperiboeum*
- 24(21). Pronotum and elytra without patches of condensed prostrate white pubescence25
- Pronotum and elytra with scattered patches of condensed prostrate white pubescence; (type: *Trichophorus decipiens* Bates)*Neotrichophoroides*
- 25(24). Antennal segments with prominent spines at apex of one or more segments beginning with third, some of the segments usually distinctly carinate26
- Antennae serrated, without distinct spines and without distinct carinae, twelve-segmented in the male, eleven-segmented in the female; elytra apices bispinose in the male, unarmed in the female; large species, 27 mm. or more in length (type: *Axestinus obscurus* LeConte)*Axestinus*
- 26(25). Antennae with segments beginning with fourth or fifth flattened and usually expanded externally, beginning with fourth, fifth or sixth, obtusely carinate, the carinae distinct over apical segments including last; elytral apices nearly always prominently bispinose or trispinose; larger species, usual range 20–36 mm.27
- Antennae slender, at most with outer segments slightly expanded, carinae fine, usually beginning with third segment and rarely extending beyond seventh or eighth segments; elytral apices truncate or shallowly emarginate, sometimes armed with a sutural spine, sometimes bispinose; smaller species, usual range 9–20 mm.29

- 27(26). Elytra pubescent, the pubescence sometimes interrupted by denuded lines or small round dots28
- Elytra polished, shining, glabrous except for scattered erect setae; antennae a little longer than the body in the male, shorter than the body in the female, third and fourth segments sulcate, third to seventh spinose, eleventh appendiculate (type: *Aneflus? fulvipennis* Bates.....*Meganeflus*)
- 28(27). Antennae twelve-segmented in the male (type: *Protaneflus pubescens* Linsley).....*Aneflus (Protaneflus)*
- Antennae eleven-segmented in both sexes (type: *Elaphidion protensum* LeConte)*Aneflus (Aneflus)*
- 29(26). Antennae with spine of third segment usually straight, acute, but little longer than that of fourth segment, when present; body sparsely clothed with long flying hairs (type: *Elaphidion subpubescens* LeConte)*Aneflomorpha*
- Antennae with spine of third segment very long, incurved, blunt; body abundantly clothed with long flying hairs (type: *Elaphidion tenue* LeConte).....*Anepsyra*

Genus SPHAERION Serville

Sphaerion Serville, 1834, Ann. Soc. Ent. France, 3:68; Gounelle, 1907, Bull. Soc. Ent. France, 1907:240.

This genus may be readily recognized among the Mexican and Central American Sphaerionini with clavate and pedunculate femora by having the elytra uniformly densely clothed with very fine silky pubescence. It differs from *Nephalius* by the unarmed pronotum. The species are principally South American although the following extends its range into southern Mexico.

SPHAERION EXUTUM (Newman)

Nephalius exutus Newman, 1841, Entomologist, 1:93.

Sphaerion exutum, Gounelle, 1907, Bull. Soc. Ent. France, 1907:240.

Male: Form elongate, subparallel, depressed; integument reddish-brown, densely clothed with pale silky pubescence which hides the surface except for the coarser punctures, and scattered, coarse, suberect hairs on the legs and elytra. Head with eyes coarsely faceted; antennae exceeding elytral apices by about three segments, third and fourth segments bicarinate, fourth and fifth unicarinate, third and fourth segments feebly spinose at apex. Pronotum wider than long, sides broadly rounded, apex wider than base which is moderately constricted, disk with an elongate-oval median callous and a pair of suboval callouses on each side, the anterior a little larger, sides coarsely punctate, the punctures visible through the pubescence and mostly separated by about two diameters; pro-sternum with pubescence and punctation similar to that of side of pronotum; meso- and metasterna densely pubescent, without coarse punctures. Elytra with the larger punctures less coarse than those of pronotum and a little more widely separated, becoming smaller and less evident over apical one-third, where the long, coarse, erect setae are more numerous; apices rounded externally and internally to a

median apical spine. Legs with femora pedunculate and suddenly clavate beyond middle, apices without spines; tibiae carinate. Abdomen densely pubescent, with a very few, widely separated, coarse punctures bearing a suberect hair. Length 14–16 mm.

Characterized from two males captured seven miles west of Tuxtla Gutierrez, Chiapas, Mexico, April 2, 1953 (R. C. Bechtel and E. I. Schlinger) (California Insect Survey, University of California, Berkeley). These examples are 14–16 mm. in length, in the lower size range of Brazilian examples.

Nesostizocera Linsley, new genus

Integument polished, shining, sparsely punctate, subglabrous except for scattered long erect hairs. Head with eyes coarsely faceted, antennae exceeding elytral apices in the male, segments carinate, three to six, seven or eight spinose at apex. Pronotum, with disk uneven and more or less tuberculate, almost impunctate, constricted at base and apex, sides with an obtuse lateral tubercle; prosternum with intercoxal process arched and arcuately declivous posteriorly; intermediate coxal cavities open to epimeron; episterna of metathorax narrow, parallel-sided. Elytra with apices emarginate, the angles acute or subspiniform. Legs slender, posterior femora pedunculate and clavate beyond middle, apex acutely bidentate or more or less bispinose; intermediate and posterior tibiae carinate.

TYPE OF GENUS: *Stizocera floridana* Linsley

This genus is proposed for a group of species, principally from the West Indies and Florida, which have been assigned previously to *Stizocera*. They differ from that group in the laterally tuberculate pronotum, open intermediate coxal cavities, and less strongly developed femoral and elytral spines. In addition to the type, *S. dozieri* Fisher and *S. vanzwaluenburgi* Fisher should be included.

Micropsyrassa Linsley, new genus

Small sized (ca. 7–8 mm.), parallel-sided, slightly depressed. Integument polished, shining, thinly clothed with long erect hairs. Head with eyes coarsely faceted; antennae with a long slender spine at apex of third segment which is slightly curved and more than half as long as fourth segment, spine of fourth segment if present, short, straight carinae scarcely evident beyond fifth segment. Pronotum cylindrical, without a lateral spine or tubercle; prosternum of male transversely impressed, coarsely punctate, finely pubescent in front of coxae, intercoxal process arcuate behind; intermediate coxal cavities closed to epimeron; episterna of mesosternum narrow, subparallel, not covered by elytra. Elytra with apices rounded to the suture or feebly emarginate, not spinose. Femora pedunculate and abruptly clavate, apices without spines, at most feebly dentate; tibiae carinate.

TYPE OF GENUS: *Psyrassa pilosella* Bates

This genus is proposed for a number of small species, mostly undescribed, which resemble *Psyrassa* in the long apical spine of

the third antennal segment. They differ at once, however, in the pedunculate and abruptly clavate intermediate and posterior femora and the strongly impressed prosternal sexual characters of the male.

Genus STIZOCERA Serville

Stizocera Serville, 1834, Ann. Soc. Ent. France, 3:107; Gounelle, 1907, Bull. Soc. Ent. France, 1907:241.

In this genus the femora are pedunculate and clavate and spinose at the apex, the pronotum is cylindrical, polished and subglabrous, the intermediate coxal cavities are closed to the epimeron, and the elytral apices have a prominent external spine. Species known to occur in Central America are *S. plicicollis* Germar, *S. lissonota* Bates, and *S. poeyi* Chevrolat in Panama, and *S. laceyi* Linsley in British Honduras.

Neoperiboeum Linsley, new genus

Medium-sized (ca. 14–20 mm.), elongate, parallel-sided. Integument shining but punctate and thinly pubescent. Head with eyes coarsely faceted; antennae of male exceeding elytral apices by about four segments, carinae distinct over third to fifth segments, faint over outer segments, third to fifth segments spinose at apex, spine of third segment more than twice as long as that of fourth, apex blunt; antennae of female slightly surpassing elytral apices, third to sixth (or seventh) segments spinose at apex, spine of third segment more than half as long as fourth segment, blunt, projecting at a greater angle than spines of following segments. Pronotum cylindrical, without a lateral spine or tubercle, dorsal surface with an elongate longitudinal, post-median callous with an ante-median callous on each side, punctation coarse, confluent, not alveolate; prosternum with intercoxal process arcuate posteriorly; intermediate coxal cavities closed to epimeron. Elytra with apices narrowly emarginate, sutural angle dentiform, external angle armed with a short spine. Femora pedunculate and abruptly clavate, without apical spines; intermediate and posterior tibiae carinate.

TYPE OF GENUS: *Periboeum villosulum* Bates

This genus differs at once from *Periboeum* by the unarmed pronotum and closed intermediate coxal cavities. It is more closely related to *Stizocera*, from which it is distinguished by the absence of femoral spines and the more abundant erect pubescence.

NEOPERIBOEUM VILLOSULUM (Bates)

Periboeum villosulum Bates, 1872, Trans. Ent. Soc. London, 1872:176; Bates, 1880, Biologia Centrali-Americana, Coleoptera, 5:27, 253, pl. 3, fig. 16.

Dark brown with appendages reddish-brown, surface thinly clothed with long erect pale hairs which do not obscure the integument. Pronotum coarsely and more or less confluent punctate, obscurely clothed with fine appressed pubescence intermixed with long erect, coarse flying hairs; scutellum densely white pubescent. Elytra with basal punctures separated, less

coarse than those of pronotum, becoming finer and sparser behind the middle, evanescent apically; surface thinly clothed with moderately short, coarse, recurved pubescence intermixed with longer erect hairs. Posterior femora nearly attaining elytral apices in male, falling distinctly short of apices in female. Length 14–20 mm.

Specimens have been seen from Nicaragua and Panama. The type locality is Chontales, Nicaragua.

Hemistizocera Linsley, new genus

Form elongate, subcylindrical; integument polished, shining, coarsely and distinctly punctate, thinly clothed with an intermixture of short and moderately long suberect hairs. Head with eyes coarsely faceted; antennae with carinae distinct over third to fifth segments, faint beyond fifth, third to fifth segments armed with an apical spine, that of third segment long, slender, curved, acute at apex, more than half as long as fourth segment, that of fourth segment straight, also long but not reaching middle of fifth segment. Prothorax cylindrical, without a lateral spine or tubercle, pronotum with an irregular, post-median smooth area; prosternum with intercoxal process arched, apex expanded; mesosternum with intermediate coxal cavities open to epimera. Femora pedunculate and clavate, without apical spines; intermediate and posterior tibiae carinate.

TYPE OF GENUS: *Periboeum cribricollis* Bates

A genus apparently related to *Stizocera*, but differing by having the intermediate coxal cavities open to the epimera and the femora without apical spines.

HEMISTIZOCERA CRIBRICOLLIS (Bates)

Periboeum cribricolle Bates, 1885, *Biologia Centrali-Americana*, Coleoptera, 5:253, pl. 18, fig. 9.

Stizocera cribricollis, Aurivillius, 1912, *Coleopt. Catal.*, 39:99.

Dark rufo-castaneus. Pronotum with punctures surrounding smooth area contiguous and to some extent confluent. Elytra less coarsely punctate than pronotum, basal punctures mostly separated by less than one diameter, punctures becoming smaller beyond middle and evanescent over apical one-third. Length 15 mm.

The type specimen, apparently a female (?), is from Almolonga, Mexico.

Nephalioides Linsley, new genus

Integument polished, shining, sparsely punctate, subglabrous except for a few long suberect hairs. Head with eyes coarsely faceted; antennae exceeding elytral apices by about four segments in the male, two in the female, with carinae distinct on third and fourth segment, third to seventh segment spinose in the male, third to eighth in the female, the spines straight, successively decreasing in length. Pronotum smooth, almost impunctate, without a lateral spine or tubercle, rounded or obtusely rounded at the sides; prosternum with intercoxal process arcuately declivous posteriorly; intermediate coxal cavities open to epimeron; episterna of metathorax narrow, parallel-sided. Elytra with apices obliquely emarginate, inner angle dentiform, outer

angle spinose. Legs with posterior femora exceeding elytral apices in the male, extending nearly to apices in female, feebly swollen and slightly pedunculate; intermediate and posterior tibiae carinate.

TYPE OF GENUS: *Nephalius rutilus* Bates.

Superficially resembling the genus *Parastizocera*, but the contained species are of a smaller size (11–17 mm.), the pronotum is unarmed, and the intermediate and posterior femora are feebly swollen and slightly pedunculate. The smooth pronotum and more numerous antennal spines distinguish it from *Hemistizocera*.

NEPHALIOIDES RUTILUS (Bates)

Nephalius rutilus Bates, 1872, Trans. Ent. Soc. London, 1872:177; Bates, 1880, Biologia Centrali-Americana, Coleoptera, 5:27, 254, pl. 4, fig. 14.

Stizocera rutilus, Aurivillius, 1912 Coleopt. Catal., 79:99.

Integument black, shining, head and thorax bright red, elytra bluish-black. Length 13–17 mm.

The type, a female, is from Chontales, Nicaragua. Examples from Cordoba, Vera Cruz, Mexico (A. Fenyés, California Acad. Sci.) agree well with the type but are smaller. Specimens from Las Cañas, Costa Rica, April 9, 1943 (T. Aitken, California Acad. Sci.) are darker in color, the head and thorax a darker red, the elytra a darker blue-black.

NEPHALIOIDES NIGRIVENTRIS (Bates)

Nephalius nigriventris Bates, 1874, Trans. Ent. Soc. London, 1874:220; Bates, 1880, Biologia Centrali-Americana, Coleoptera, 5:27, pl. 4, fig. 2.

Stizocera nigriventris, Aurivillius, 1912, Coleopt. Catal., 39:99.

Head, including antennal scape, prothorax, and femora rufo-testaceous antennal flagellum, tibiae, tarsi, and abdomen black, elytra testaceous, sutural margin and apical spines darker. 12–15 mm.

The type, a male, is from Chontales, Nicaragua. The species has also been taken in Guatemala and southern Mexico.

GENUS CONOSPHERION Linsley

Conosphaerion Linsley, 1935, Trans. Amer. Ent. Soc., 61:77.

This genus and the following may be distinguished among the Mexican and Central American Sphaerionini with clavate and pedunculate femora, by the form and sculpturing of the pronotum, which is broadly rounded or obtusely subangulate at the sides and densely alveolate-punctate. Three species are known from central and northern Mexico and southwestern United States. They are all rather small, ranging in length from 10–12 mm.

Haplosphaerion Linsley, new genus

Integument shining but punctate and thinly clothed with long erect hairs. Head with eyes coarsely faceted; antennae, at most with segments three to

five spinose at apex, spines of third and fourth segments minute or lacking in the male. Pronotum elongate, laterally unarmed, the sides obtusely rounded behind the middle, disk without callouses, a smooth vitta behind middle, remaining surface alveolate-punctate, the punctures large but shallow; prosternum with intercoxal process arcuately declivous posteriorly; intermediate coxal cavities closed to epimeron. Elytra with integumental maculae, apices slightly emarginate, inner angle truncate, not produced, outer angle feebly dentiform.

TYPE OF GENUS: *Periboeum bimaculatum* Bates

Related to *Conosphaerion*, but differing in the feebly spinose antennae, maculate elytra, and rounded rather than obtusely angulate pronotum.

HAPLOSPHAERION BIMACULATUM (Bates)

Periboeum bimaculatum Bates, 1872, Trans. Ent. Soc. London, 1872:176; Bates, 1880, Biologia Centrali-Americana, Coleoptera, 5:27, 253, pl. 4, fig. 15.

Integument reddish-brown, elytra each with a somewhat oval, yellowish spot in front of middle, the surrounding area vaguely darker and more brownish, providing greater contrast for the spots. Pronotum with fine, appressed, golden pubescence in basal constriction. Scutellum golden pubescent. Length 9–10 mm.

Type locality: Chontales, Nicaragua.

Genus TRICHOPHOROIDES Linsley

Trichophoroides Linsley, 1935, Rev. de Entomologia, 5:139.

This genus differs from *Trichophorus* in the feebly spinose antennae, unarmed elytral apices and different type of pubescence. The type species, *T. niveus* Linsley, is from Cuernavaca, Mexico.

Eutrichophoroides Linsley, new genus

Small to moderate-sized, parallel-sided, somewhat depressed. Integument shining, punctation of head and pronotum dense, surface with scattered patches of dense, appressed pubescence, in addition to erect and suberect hairs. Head with eyes coarsely faceted, antennae with third segment much longer than fourth, fourth not or scarcely as long as fifth, spines present on segments three to five or six in the male, three to eight in the female, the ninth sometimes minutely spiculate, carinae distinct on segments three to seven or eight at least. Pronotum about as broad as long, sides broadly rounded, surface with a median polished callous and an arcuate longitudinal callous on each side of disk; prosternal process arcuate posteriorly; intermediate coxal cavities narrowly open externally. Elytra with apices emarginate, outer angle dentiform or spiniform. Femora clavate and pedunculate, apices without spines; intermediate and posterior tibiae carinate.

TYPE OF GENUS: *Trichophorus albisparsus* Bates.

A genus apparently related to *Trichophoroides* but differing in the more numerous antennal spines and the form of the elytral apices. In addition to the type species, *Trichophorus jansoni*

Bates should also be assigned here. Both species are from Nicaragua. *E. albisparsus* is a small species, 10–11 mm. in length. *E. jansoni* is larger, ranging from 13–18 mm.

Genus SPHAERIONILLUM Bates

Sphaerionillum Bates, 1885, *Biologia Centrali-Americana*, Coleoptera, 5:256.

This genus may be readily recognized by the coarse erect setae of the elytra which are more or less equally spaced in four or five rows, the integumental maculations of the elytra, and the minutely punctate and densely tomentose pronotum, at least peripherally. The anterior coxal cavities are closed behind, or nearly so by the expanded apex of the intercoxal process which is arched and arcuately declivous. The intermediate coxal cavities are closed to the epimeron. Two species have been described, *S. quadrisignatum* Bates, and *S. pictum* Bates, differing in the proportions of the pronotum, number and arrangement of the elytral maculations, and the form of the elytral apices.

Genus NEPHALIUS Newman

Nephalius Newman, 1841, *Entomologist*, 1:93; Bates, 1885, *Biologia Centrali-Americana*, Coleoptera, 5:254; Gounelle, 1907 *Bull. Soc. Ent. France*, 1907:243, 244.

This genus was proposed to include five Brazilian species, two of which have since been assigned to *Sphaerion*. The name was used for quite a different group of species by Thomson (1860) and for still another group by Lacordaire (1869). When applied as restricted by Bates (1885) and Gounelle (1907), only one described species from Central America can be assigned here.

NEPHALIUS APICATUS Linsley

Nephalius (?) *apicatus* Linsley, 1935, *Rev. de Entomologia*, 5:140.

N. apicatus is a yellowish testaceous species with the head and appendages reddish to rufo-piceous and the elytral apices black. The elytra are minutely pubescent, with scattered long, erect setae superimposed. The type series is from La Chorera, Panama (U.S. National Museum).

Genus PANTONYSSUS Bates

Pantonyssus Bates, 1870, *Trans. Ent. Soc. London*, 1870:276.

A characteristic genus with linear intermediate and posterior femora which are armed with a single long external spine, and a pronotum with elevated dorsal callosities. The group is represented in Panama by a form which has been referred to *P. bitinctus* Gounelle.

Parastizocera Linsley, new genus

Integument polished, shining, sparsely punctate, glabrous except for a few long suberect hairs. Head with eyes coarsely faceted; antennae twice as long as body in male, third to seventh segments spinose at apex, third to tenth carinate, about as long as body in female, third to fifth segments carinate, third to tenth spinose at apex, spines straight, successively decreasing in length. Pronotum subcylindrical but with a distinct lateral tubercle and five discal tubercles; prosternum with intercoxal process arcuately declivous posteriorly; mesosternal process truncate in front, subvertical; intermediate coxal cavities closed to epimeron; episterna of metathorax narrow, parallel-sided. Elytra with apices obliquely emarginate, inner angle dentiform, outer angle armed with a long spine. Legs with intermediate and posterior femora slender, not clavate or pedunculate, without apical spines; posterior femora attaining elytral apices in male, falling short of apices in female; tibiae carinate.

TYPE OF GENUS: *Nephalius suturalis* Pascoe.

This genus is distinguished among the group of genera with a polished subglabrous pronotum and elytra and unarmed, non-pedunculate femora by the presence of a lateral prothoracic tubercle.

PARASTIZOCERA SUTURALIS (Pascoe)

Sphaerion suturale Pascoe, 1866, Ann. Mag. Nat. Hist. (3) 18:479.

Nephalius suturalis, Bates, 1880, Biologia Centrali-Americana, Coleoptera, 5:27.

Periboeum suturale, Bates, 1885, Biologia Centrali-Americana, Coleoptera, 5:254.

Stizocera suturalis, Aurivillius, 1912, Coleopt. Catal., 39:99.

Head including antennal scape, thorax, femora except base, and abdomen reddish-brown, antennal flagellum, femora at base, tibiae and tarsi black, elytra yellowish-brown with marginal line and apical spine black. Length 18–22 mm.

Ranging from Brazil to Yucatan, Mexico.

Megapsyrassa Linsley, new genus

Integument polished, shining, sparsely punctate, very thinly pubescent. Pronotum cylindrical, smooth, without a lateral tubercle. Antennae of male not attaining elytral apices, eleventh segment appendiculate, grooves and carinae indistinct, spines of third and fourth segments, coarse, curved, acute, spine of fourth segment a little shorter than that of third, those of fifth and sixth segments straight, successively shorter, that of seventh segment minute. Elytral apices emarginate, inner angle subdentiform, outer angle acute but not spinose. Intermediate and posterior femora gradually enlarged, not clavate or pedunculate, apices not spinose, posterior tibiae carinate. Prosternum with intercoxal process arcuately declivous, apex expanded but not closing coxal cavities. Mesosternum with intercoxal process concave in front; intermediate coxal cavities closed. Metasternum with episterna very narrow, covered by elytra except toward base.

TYPE OF GENUS: *Nephalius xestioides* Bates.

The affinities of this genus are not clear. It should probably be placed next to *Psyrassa*, from which it differs in the extremely narrow metathoracic episterna, the unusually heavy, recurved spines of the third and fourth antennal segments (in *Psyrassa* the spines are nearly always slender and that of the third segment is usually disproportionately long) and the large size of the included species. *Aposphaerion*, to which Bates referred the species in 1880, has clavate femora and bispinose elytral apices.

MEGAPSYRASSA XESTIOIDES (Bates)

Nephalius xestioides Bates, 1872, Trans. Ent. Soc. London, 1872:177.

Aposphaerion xestioides, Bates, 1880, Biologia Centrali-Americana, Coleoptera, 5:28.

Reddish-brown, highly polished, shining. Pronotum very sparsely punctate, with scattered erect pale hairs. Elytra distinctly, moderately coarsely punctate, punctures separated by one to several diameters near base, becoming obsolete beyond middle, with scattered long suberect hairs. Length 26 mm.

The type, a male, is from Chontales, Nicaragua. Examples have also been seen from Costa Rica and Panama.

Genus PSYRASSA Pascoe

Psyrassa Pascoe, 1866, Ann. Mag. Nat. Hist. (3) 18:481; Bates, 1880, Biologia Centrali-Americana, Coleoptera, 5:28; Linsley, 1936, Ann. Ent. Soc. Amer., 29:478.

Including the two following species, *Psyrassa* now comprises about twenty described species in North and Central America. Judging from the description ("thorace lateribus obtuse spinosis, dorso quinque gibboso . . ."), *P. rufescens* Nonfried, described from Brazil, must belong to some other genus.

PSYRASSA SUBPICEA (White), new combination

Sphaerion subpiceum White, 1853, Catal. Coleopt. British Mus. 7:109.

Reddish-brown. Antennae not attaining elytral apices in the male, fourth segment distinctly shorter than third, subequal to fifth, spine of third segment about two-thirds as long as fourth segment, somewhat recurved and at a greater angle to the apex than those of the following segments, the apex acute, spines of fifth to seventh segments distinct, that of eighth segment minute. Pronotum irregularly punctate, with large, shallow, poorly defined punctures. Elytra with deeper, less regular punctures, those near base varying from subcontiguous to one or two diameters apart, becoming a little smaller, but still dense toward apex; apices emarginate, the outer angle produced, acute but not spiniform. Length 13.5 mm.

The type, a male, is from Honduras.

PSYRASSA ALIENA (Linsley), new combination

Stizocera aliena Linsley, 1934, Psyche, 41:235.

This species, doubtfully referred to *Stizocera* when originally described, appears to be better referred to *Psyrassa* than to any of the other genera here recognized. It differs from most of the presently included species in the somewhat heavier spines of the third and fourth segments of the antennae, although that of the third segment is disproportionately long, and the transversely rugose pronotum. The scutellum, meso- and metepisterna and an adjacent narrow band along margin of metasternum, and the tarsi are densely golden pubescent.

Genus STENOSPHEOPSIS Linsley

Stenosphenopsis Linsley, 1935, Trans. Amer. Ent. Soc., 61:95.

This is a monotypic genus which differs from *Ironeus* by having the intermediate coxal cavities closed externally and the eyes very finely faceted. From *Stenosphenus* it may be distinguished by the tuberculate mesosternum and clavate femora. The type species, *S. nitidus* Linsley, is from Bejucos, District of Temascaltepec, Mexico.

Genus STENOSPHEONUS Haldeman

Stenosphenus Haldeman, 1847, Trans. Amer. Philos. Soc., 10:39; Lacordaire, 1869, Genera Coleopt., 9:130; Bates, 1880, Biologia Centrali-Americana, Coleoptera, 5:65, 312.

About 25 species of this genus are now known from Mexico and Central America. Others await description. The type of the genus, *Callidium notatum* Olivier, is from eastern United States.

Genus IRONEUS Bates

Ironeus Bates, 1872, Trans. Ent. Soc. London, 1872:178; Bates, 1880-1885, Biologia Centrali-Americana, Coleoptera, 5:29, 255.

This genus is apparently related to *Stenosphenus* and tends to approach it in the finer faceting of the eyes. Three species are known, distinguishable as follows:

1. Elytra thinly pubescent, surface not obscured by tomentum.....2
 - Elytra densely clothed with yellowish tomentose pubescence except for suture and three longitudinal vittae, of which the second is the most prominent; head including antennal scape, prothorax, and femora rufo-testaceous. 11 mm. Nicaragua to central Mexico.....*pulcher*
2. Black with head and pronotum bright red; antennae of male but little longer than body. 10.5 mm. Southern Mexico.....*mutatus*
 - Black with femora bright red; antennae of male nearly twice as long as body. 11-12.5 mm. Nicaragua to northern Mexico.....*duplex*

Genus MALLOCERA Serville

Mallocera Serville, 1833, Ann. Soc. Ent. France, 2:567; Aurivillius, 1912, Coleopt. Catal, 39:100.

As restricted by Aurivillius (1912), this genus contains only one described species in Central America, *M. spinicollis* Bates from Nicaragua.

Genus PARAMALLOCERA Aurivillius

Paramallocera Aurivillius, 1912, Coleopt. Catal., 39:100.

A genus largely confined to South America, one species, *P. cribripennis* (Bates), extending its range into Central America (Panama).

Genus PSEUDOPERIBOEUM Linsley

Pseudoperiboeum Linsley, 1935, Trans. Amer. Ent. Soc., 61:77.

Known only from the type species, *P. subarmatum* Linsley, from central Mexico.

Neotrichophoroides Linsley, new genus

Moderate-sized, parallel-sided, somewhat depressed. Integument shining, distinctly punctate, with scattered patches of dense, appressed pubescence, in addition to scattered erect hairs. Head with eyes coarsely faceted; antennae with third segment much longer than fourth, fourth not or scarcely as long as fifth, spines present on segments three to six, carinae indistinct beyond fourth segment. Pronotum a little broader than long, sides obtusely rounded, with a median dorsal polished callous and a pair of arcuate polished callouses at margin of disk, intermediate area coarsely, densely punctate; prosternal process arcuate posteriorly; intermediate coxal cavities narrowly open externally. Elytra with apices rounded to the suture; femora unarmed gradually enlarged, not clavate and pedunculate, apices without spines, at most feebly dentate; tibiae carinate.

TYPE OF GENUS: *Trichophorus decipiens* Bates.

Differing from the superficially similar *Trichophoroides* and *Eutrichophoroides* by the gradually enlarged posterior femora which are not clavate or pedunculate.

NEOTRICHOPHOROIDES DECIPIENS (Bates)

Trichophorus decipiens Bates, 1880, Biol. Centr.-Amer., Coleoptera, 5:26.

The type of *N. decipiens* (Bates), from the River Sartoon, British Honduras, is a reddish-brown female, 20 mm. in length. A female example from Esteli, Nicaragua, April 2, 1943 (T. Aitken) is smaller than the type (15 mm.) and brown, rather than reddish-brown.

Neotrichophoroides aurivillii Linsley, new species

Male: Dark brown, appendages reddish; integument sparsely pubescent, with condensed patches of tawny tomentum on front of head, each side of

pronotal disk, and all of scutellum and a very few patches of white pubescence on elytra. Head coarsely punctate except for a smooth area between upper lobes of eyes; antennae slightly exceeding elytral apices, third and fifth segments subequal in length, fourth shorter, carinae distinct over seventh segment, at least, third and fourth segments distinctly spinose at apex, fifth minutely spiculate. Pronotum slightly longer than broad, median smooth area extending from base nearly to apex, an irregular suboval callous on each side anterior to middle and an elongate callous on each side just lateral to and behind the anterior callouses, remaining discal area finely densely punctate, with a few coarse depressed tawny hairs. Elytra very coarsely, densely punctate but the narrow interspaces shining, the discal punctures becoming smaller and shallower toward middle, the lateral punctures beyond middle, surface uniformly sparsely clothed with coarse suberect hairs which are somewhat longer apically; apices emarginate, sutural angle dentiform, outer angle more prominent, subspiniform. Legs sparsely pubescent. Length 12 mm.

Holotype male, CHIRIQUI, PANAMA, in the Naturhistoriska Riksmuseets, Stockholm.

This species may not be strictly congeneric with *N. decipiens* (Bates), since the elytral apices are emarginate with the inner angle dentiform, the outer angle subspiniform, the antennae are carinate over the seventh segment at least and the third segment is no longer than the fifth, and the pronotal sculpturing is quite different. However, *N. decipiens* is known only from the female, *N. aurivillii* only from the male, and it is possible that at least some of these differences are sexual.

Genus AXESTINUS LeConte

Axestinus LeConte, 1873, Smithsonian Misc. Coll., 11(264):177; Linsley, 1936. Ann. Ent. Soc. Amer., 29:469.

Protoneidium Bates, 1892, Trans. Ent. Soc. London, 1892:149.

The synonymy of *Protoneidium* Bates, and its type species *P. brevicorne* Bates, with *Axestinus* LeConte, and its type species *A. obscurus* LeConte, reconfirmed by examination of the types, has been reported previously (Linsley, 1936), but was overlooked in the Blackwelder checklist (1946, Smithsonian Inst., Bull. 185(4):564).

Meganeflus Linsley, new genus

Form moderately large, elongate, parallel-sided, subcylindrical with elytra somewhat depressed and flattened. Integument polished, shining, pubescent, except for scattered long erect hairs. Head with eyes coarsely faceted; antennae eleven-segmented, slightly longer than the body in the male, a little shorter than the body in the female, third and fourth segments

sulcate, remainder obtusely carinate above, relatively slender, scarcely expanded externally, third to seventh segments spinose at apex, eleventh segment appendiculate. Pronotum subquadrate but obtusely rounded at the middle, dorsal surface uneven; prosternum with intercoxal process arcuate behind and slightly expanded at the apex, coxal cavities very slightly angulate externally; intermediate coxal cavities open to epimeron; episterna of metasternum narrow. Legs slender, femora of intermediate and posterior pairs not clavate or pedunculate, without apical spines, the tibiae carinate externally. Elytra prominently bispinose at apex.

TYPE OF GENUS: *Aneflus? fulvipennis* Bates.

This genus is of the size and general form of *Aneflus* but differs in the shining glabrous elytra.

MEGANEFPLUS FULVIPENNIS (Bates)

Aneflus? fulvipennis Bates, 1892, Trans. Ent. Soc. London, 1892:148.

Meganeflus fulvipennis is brownish-piceous with the elytra brownish-testaceous, with the elevated sutural, apical, and lateral margins and the apical spines black. It has been found in the Mexican state of Vera Cruz and in British Honduras (Punta Gorda):

Genus ANEFLUS LeConte

Aneflus LeConte, 1873, Smithsonian Misc. Coll., 11(264):185; Linsley, 1936, Ann. Ent. Soc. Amer., 29:469.

Protaneflus Linsley, 1934, Psyche, 41:233.

This genus is represented in Mexico by at least seven species: *A. cylindricollis* Bates, *A. basicornis* Linsley, *A. rugicollis* Linsley, *A. pubescens* (Linsley), *A. paracalvatus* Knull, *A. prolixus* LeConte, and *A. protensus* (LeConte). Others undoubtedly occur in the northern regions near the Arizona border.

ANEFLUS (PROTANEFPLUS) PUBESCENS Linsley

Protaneflus pubescens Linsley, 1934, Psyche, 41:233.

The antennae in this form are twelve-segmented in the male, eleven-segmented in the female. It is closely related to *A. cylindricollis* Bates. Examples have been seen from Guatemala, Costa Rica, British Honduras and Panama.

Genus ANEFLOMORPHA Casey

Aneflomorpha Casey, 1912, Mem. Coleoptera, 3:293; Linsley, 1936, Ann. Ent. Soc. Amer., 29:472.

To the six Mexican species previously assigned to this genus (*A. australis* Linsley, 1942, and *A. rosaliae* Linsley, 1942, were omitted from the Blackwelder checklist), the following should be added:

ANEFLOMORPHA CRIBELLATA (Bates)

Psyrassa cribellata Bates, 1892, Trans. Ent. Soc. London, 1892:152.

Dark brown, elytra a little paler. Antennae probably not exceeding elytral apices, fourth segment distinctly shorter than third and subequal to fifth, third to seventh segments spinose at apex, spine of third segment acute, about half as long as fourth segment, spine of fourth segment a little shorter than that of third, of fifth and sixth segments successively shorter than that of seventh minute, spiculiform. Pronotum distinctly larger than broad, constricted at base, coarsely, densely, contiguously and to some extent confluent punctate, with an irregular narrow median longitudinal smooth area behind middle. Elytra coarsely densely punctate, basal punctures separated by one diameter or less, becoming smaller behind middle and shallower less well defined toward apex; pubescence uniform, short, recurved, pale, without an intermixture of erect hairs, apices narrowly but distinctly emarginate, the angles distinct but not produced. Length 15 mm.

The short recurved rather than appressed pubescence which does not obscure the surface appears to be a distinctive feature of this species. The type is from Acapulco, Guerrero.

Genus ANEPSYRA Casey

Anepsyra Casey, 1912, Mem. Coleoptera, 3:293; Linsley, 1935, Ann. Ent. Soc. Amer., 29:476.

This genus now contains four Mexican species, *A. volitans* LeConte, *A. gracilis* Linsley, *A. mexicana* Linsley, and *A. grandicolle* Linsley. This last was omitted from the Blackwelder checklist. The West Indian species described by Fisher as *Anepsyra jaumei* (1935, Proc. U.S. National Museum, 83:193) does not appear to be congeneric with these. It is closer to *Psyrassa* and should probably be assigned to a new genus.

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A NEW SPECIES OF PURPURICENUS FROM TEXAS

(Coleoptera: Cerambycidae)

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In the course of a National Science Foundation sponsored study of North American Cerambycidae, the following apparently new species of *Purpuricenus* was discovered in the collection of the Museum of Comparative Zoology, Harvard University. I am indebted to P. J. Darlington, Jr., of that institution; to E. G. Linsley, University of California, for the opportunity of describing